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## A new species of *Botanochara* DEJEAN, 1837 from Brazil (Coleoptera: Chrysomelidae: Cassidinae: Stolaini)

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**ABSTRACT.** *Botanochara matogrossensis*, a species new to science, is described from Mato Grosso, Brazil, Cochabamba. It is well characterized by its unique elytral pattern.

**Key words:** entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, Stolaini, *Botanochara*, Brazil.

The genus *Botanochara* DEJEAN, 1837 (= *Poecilaspis* HOPE, 1840) comprises 42 species, partly difficult to identify (BOROWIEC 1999; BOROWIEC & ŚWIĘTOJAŃSKA 2002). Status of some taxa is unclear because in the genus *Botanochara* reproductive barriers between some sympatric species are not complete and hybridization has been observed in many cases (SPAETH 1940). Hybrids usually have distinct body shape and elytral sculpture and suggest species separateness. Especially hybrids between reticulate and not reticulate but maculate species look very distinct e.g. described as good species *Botanochara ducalis* (BOH.) proved to be a hybrid between reticulate *B. macularia* (BOH.) and maculate *B. angulata* (GERM.); *B. invasa* (BOH.) proved to be a hybrid between maculate *B. octoplagiata* (SP.) and one of the sympatric reticulate species – *B. macularia* (BOH.) or *B. tesselata* (BOH.) (this complex needs genetic verification which species is the second parent). *Botanochara bonariensis* (BOH.) hybridizes with both *B. intricata* (BOH.) and *B. macularia* (BOH.), then hybrids are more reticulate than typical *B. bonariensis* (see colour photos of various forms in BOROWIEC & ŚWIĘTOJAŃSKA 2002).

SPAETH (1940) in key form divided the genus *Botanochara* into 11 artificial groups based on combination of the following characters: presence or absence of elytral reticulation, coloration of pronotum and elytra, elytral convexity, kind of punctuation of explanate margin of elytra, and presence or absence of humeral emargination in male. Only one species was described after this fundamental SPAETH's (1940) paper – *Botanochara vianai* (BOROWIEC 1989), close to *B. quinquefasciata* (PERTY).

In the material Dr. Joachim AIDS (Tropical Ecology Working Group, Max-Planck-Institute for Limnology, Ploen, Germany) has sent me recently, collected in Mato Grosso, Brazil I have found a very distinct maculate species of the genus *Botanochara* DEJEAN. Its description is given below.

### ***Botanochara matogrossensis* n. sp.**

#### ETYMOLOGY

Named after its locus typicus, province Mato Grosso in Brazil.

#### DIAGNOSIS

In SPAETH's (1940) key it runs to thesis 11, species characterized by the following combination of characters: elytra without reticulation, elytral disc maculate and distinctly convex, humeral angles in male without emargination, and elytra mostly pale with black pattern. The group comprises also *Botanochara quinquefasciata* (PERTY, 1834) and *B. vianai* BOROWIEC, 1989. Both species distinctly differ in body outline almost circular in both sexes (in *B. matogrossensis* short-oval in male, and elongate oval in female). *B. quinquefasciata* differs in unique elytral pattern forming four almost complete bands across elytral disc while in *B. matogrossensis* elytra are spotted. *B. vianai* has elytra maculate, but pattern forms numerous (more than 40) spots spread almost regularly on whole surface of elytra, while in *B. matogrossensis* there are 16 or less spots and they form pattern as in fig. 1 and 2. *B. matogrossensis* is the slimmest species of the genus, only *B. missionea* (SPAETH, 1915) has similar body shape but differs in ground colour of elytra black with 12 pale spots, and punctuation of elytral disc very fine, distinctly finer than punctuation of explanate margin of elytra (in *B. matogrossensis* both disc and explanate margin of elytra are similarly moderately coarse punctate).

#### DESCRIPTION

Length: male 8.7-10.5 mm, female 11.0-12.1 mm, width: male 7.0-7.6 mm, female 7.7-8.0 mm, length of pronotum: male 2.7-3.2 mm, female 3.4-3.5 mm, width of pronotum: male 4.8-5.8 mm, female 6.0-6.2 mm, length/width ratio: male 1.24-1.38, female 1.43-1.51, pronotum width/length ratio: male 1.78-1.81, female 1.76-1.77. Sexual dimorphism distinct, male distinctly smaller and stouter than female (Figs 1, 2).

Holotype male: pronotum yellowish-brown, explanate margin close to base with large black, almost round spot; pronotal disc in the middle with transverse black spot, widest in the middle and with narrow "wings"; praescutellar lobe with small black spot. Elytra yellowish-brown, sutural margin narrowly black, disc with three large spots along middle, elongate spot on humerus, and spot in posterolateral part of disc close to margin; explanate margin with black spot in humeral angle and black spot slightly before the middle. Because beetles were preserved in alcohol the ground colour of elytra in examined specimens is probably darker yellow-brown than in fresh specimens before preservation in alcohol solution (thus on colour photos 1-3 reconstructed beetles have ground colour of elytra and pronotum paler than in type series). Ventrates mostly yellowish-brown, sternites with apical margin more or less broadly brown to brownish-black, in holotype male sternites 3 and 4 almost completely brown. Legs from yellowish brown to dark brown, with paler rings in basal part of femora. Antennal segments 2-6 brownish black, remainder black.

Paratype male: coloured as holotype but without anterior spot on explanate margin of elytra and central spot on pronotum with broad "wings" (Fig. 1).

First paratype female: coloured as paratype male but with central pronotal spot very large, occupying almost whole top of disc and connected with spot on praescutellar lobe (Fig. 2).

Second paratype female: central pronotal spot divided into two triangular spots, spot on praescutellar lobe small, spots on elytral disc reduced to a single, anterior spot of mid row and short stripe on humerus. Both spots on explanate margin present but smaller than in first paratype female.



1-3. *Botanochara matogrossensis*: 1 – male dorsal, 2 – female dorsal, 3 – female lateral

Pronotum ellipsoidal, anterior margin almost straight, sides regularly rounded and converging posterad. Disc of pronotum moderately convex, finely and sparsely punctate, distance between punctures much wider than puncture diameter. Explanate margin indistinctly bordered from disc, puncturation sparse, more coarse than on disc. In female paratype with large basal spots puncturation on black background distinctly more dense and coarse than puncturation on pale part of the margin. Surface between punctures slightly dull, opaque.

Scutellum triangular, shiny, black. Base of elytra distinctly wider than pronotum. Humeri in both sexes regularly rounded, in male without emargination. Sides of elytra regularly rounded, moderately converging posterad, in both sexes elytra widest in the middle. Disc in profile regularly convex, with top of convexity in mid length (Fig. 3). Puncturation of disc completely irregular, coarse and moderately dense, punctures arranged regularly on whole surface of disc or in posterolateral part of disc slightly more dense than on top of disc. Distance between punctures from as wide as to twice-thrice wider than puncture diameter. Surface between punctures opaque. Border between disc and explanate margin indistinctly marked in anterior 1/3 length. Explanate margin narrow, 4.5-5.0 times narrower than width of disc, its puncturation as coarse and dense as on disc. Apex of elytral epipleura bare.

Ventrates with no diagnostic characters. Antennae typical for the genus *Botanochara* DEJ., third segment in male twice in female 2.5 times longer than second segment, segments 9 and 10 in male as long as wide, in female slightly transverse.

Male genitalia dissected but without diagnostic characters.

#### MATERIAL EXAMINED

Holotype male: "BRAZIL: Mato Grosso, nr Prizal, Poconé, 16°15' S, 56°22' W, Fazenda Retiro Novo", "Pantanal wetlands, II 2004, col. manual on *Ipomoea asarifolia*, leg. Marinez I. Marques"; one paratype male and two paratypes female: the same data (holotype and one paratype female preserved at the Sao Paulo Museum, University of Sao Paulo, Brazil, two paratypes at the Department of Biodiversity and Evolutionary Taxonomy, Wrocław University, Wrocław, Poland).

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